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January-February,
1968

Conservation Pledge

I give my
pledge as an American
to save and faithfully to
defend from waste the
natural resources of
my country—its soil
and minerals, its
forests, waters
and wildlife

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in the interest of conser-
vation of Louisiana's nat-
ural resources by the
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70804.*



Louisiana can boast of wintering hundreds of thousands of blue and snow geese. It is a sight to see thousands of these birds rise from a rice field or from a marsh where they feed on three-cornered and other grasses. These birds also provide excellent sport for many Louisiana waterfowlers.

(Cover photo by Bob Dennie)

LOUISIANA *Conservationist*

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HAVEN FOR WILDLIFE

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THE ROCKEFELLER WILDLIFE Refuge is located in the coastal marshes of Southwestern Louisiana in Cameron and Vermilion Parishes. The refuge encompasses 84,000 acres and is owned and operated by the Louisiana Wildlife and Fisheries Commission. This area borders the Gulf of Mexico for 26.5 miles and extends northward to the Grand Chenier ridge complex, a stranded beach ridge located six miles inland from the Gulf.

This land was originally purchased by E. A. McIlhenny of Avery Island in 1912. He then sold the land to the Rockefeller Foundation and urged the foundation to place its control in the hands of the State of Louisiana for a period of five years. On September 30, 1920 the Rockefeller Foundation donated complete ownership of this land to the State of Louisiana as a wildlife refuge; however, the deed of donation set up rigid regulations specifying exactly how the refuge was to be operated and gave the Rockefeller Foundation authority to regain ownership of the property if the state was found in violation of the deed. In accepting the property Governor John M. Parker and the 1920 Legislature agreed by law to accept the property as a wildlife refuge and the terms of the deed.

It was through the efforts of E. A. McIlhenny that the state acquired at no cost a total of three tracts of prime coastal marshland totaling 180,000 acres of permanent wildlife sanctuaries.

Because of its unique location, Rockefeller Wildlife Refuge is one of the most important wildlife areas in the United States.

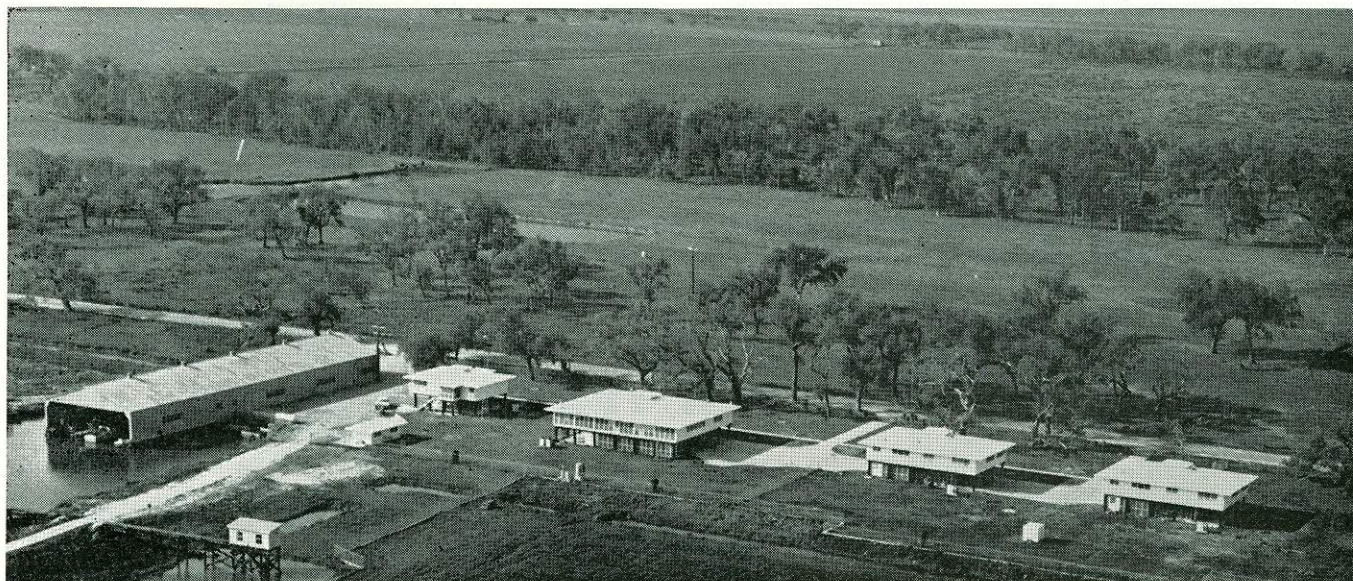
Louisiana's position at the southern-most end of the vast Mississippi Flyway causes the state to



serve as a wintering home for many of the waterfowl from northern nesting grounds. The refuge plays host to hundreds of thousands of ducks, geese, coots, and numerous wading birds each year. It also serves as a resting area for many of the transit birds that winter in Central and South America.

Year round residents such as nutria, muskrat, raccoon, otter and alligator, are in good numbers on the area. Control of certain forms of wildlife by trapping is necessary and is in compliance with the deed of donation.

Throughout the refuge are many ponds, pot-



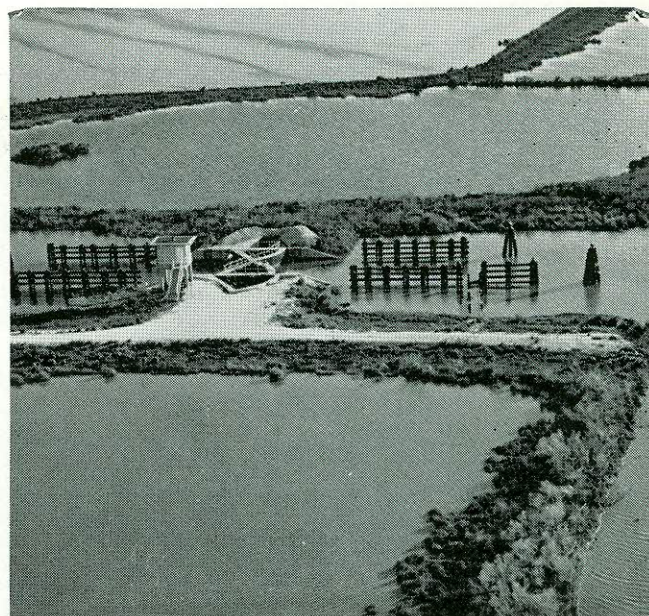
This is an aerial view of the Rockefeller Wildlife Refuge headquarters located at Grand Chenier in Cameron Parish.

holes, and lakes with numerous bayous and man-made canals. This flat treeless area contains soils which are high in organic matter and produce tons of desirable waterfowl food plants each year.

The Louisiana Wild Life and Fisheries Commission has conducted intensive development programs on the refuge; constructing marsh impoundments, weirs, and other water control structures. These various installations were constructed with waterfowl management as the primary interest. The fluid nature of the marsh soils necessitated extensive geological surveys in order to determine possible locations for impoundment levees. After these studies were completed and the location of the impoundments finalized, engineering designs were prepared for construction.

The impoundments, now completed, range in size from 480 to 5,680 acres and provided a means of controlling water levels on approximately 26,000 acres of marsh on Rockefeller Refuge. Also, numerous low weirs have been constructed since the initiation of this program. The structures are installed in the drainage systems at an elevation of six inches below marsh level, permitting water to flow back and forth during periods of high tides but preventing complete drainage of the ponds during extended periods of low tides. This in turn stabilizes the water levels in the marsh ponds behind the weirs, thus providing ideal situations for the production of desirable waterfowl food plants. Such work has resulted in a continual production of these desirable wildlife food plants in abundance necessary to attract and build up sizable populations of waterfowl on the refuge.

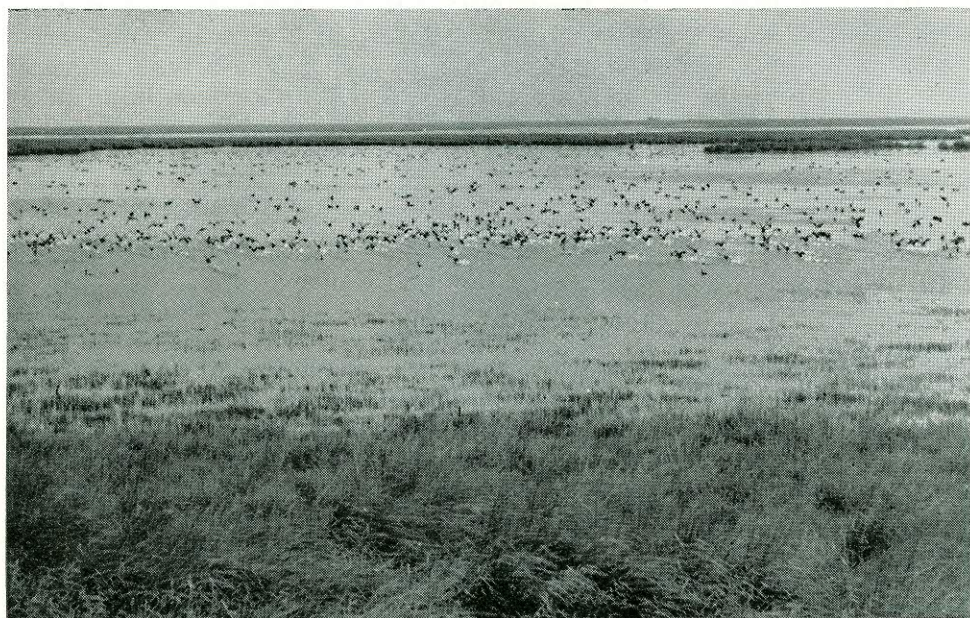
Habitat improvement by de-watering areas in the impounded fresh marsh during the growing season to produce annual grasses and stabilizing water levels in the brackish marsh for the production of aquatics has proven to be a sound management practice. Aerial inventories conducted by refuge biologists list the duck population on the refuge usually at about 400,000 birds in mid-winter. Of the total number of ducks



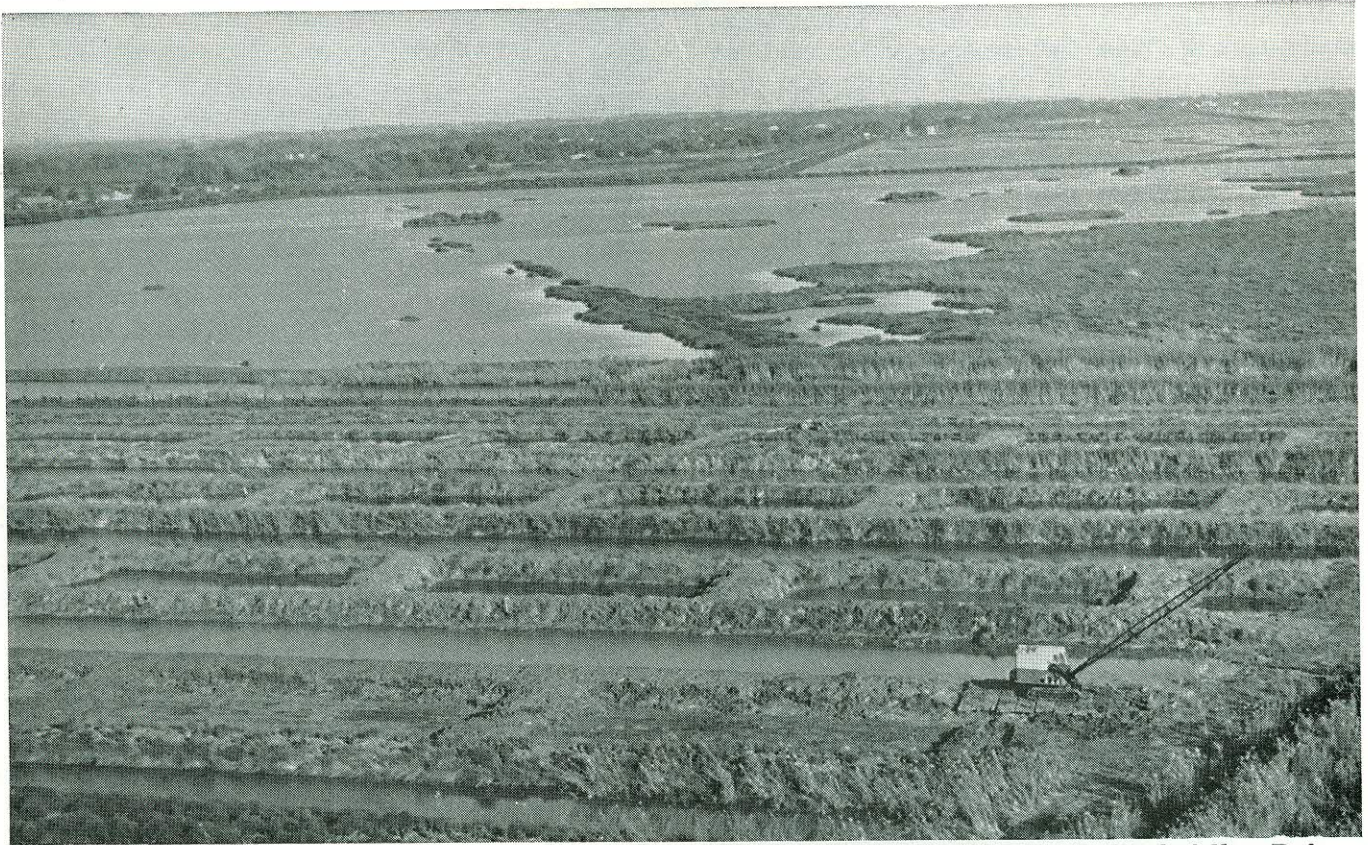
Many elaborate water control structures, levees and canals are necessary on the refuge to create and maintain conditions suitable for the production of desirable wildlife food plants.

found on the refuge, approximately 80 per cent are using the impoundments. The remaining 20 per cent are scattered throughout the refuge in ponds, lakes, and flooded marshes. Prior to the construction of the impoundments, Rockefeller Refuge wintered less than 75,000 ducks.

Numerous mineral leases have been developed on the refuge during the past several years and extreme care has been taken to prevent damage to the area for wildlife. In the past the general approach used by most mineral operations in reaching a drilling site has been to excavate canals 60 to 80 feet wide and about 8 feet deep to permit the drilling rig and other heavy equipment to be floated to the well sites. This type of operation has resulted in losses of many acres of marshes due to the network of canals to the numerous well sites. Also, this system greatly affects the natural drainage patterns, tidal flow, and increases salinities. A stipulation requiring



Over half of the entire refuge has been developed to improve conditions for wintering migratory waterfowl such as the ducks shown using one of the impoundments.



Research activities are an extremely important phase of the work program on the Rockefeller Refuge. Shown here are small fish ponds being constructed to study growth rates and food requirements for commercial marine fishes. The information gained from these studies as well as for research activities is made available to the general public.

that all new mineral development be carried out through a system of roadways, has eliminated many of the problems created by the canal system. In accordance with the deed of donation, revenue derived from mineral operations on the area is turned back to the refuge to further enhance Rockefeller Refuge as a wildlife area. Any surplus money coming from mineral development is used for the development and improvement of the public education and public health work within the State of Louisiana.

As a result of hurricane "Audrey" in 1957 all the existing buildings and facilities were severely damaged or destroyed by the hurricane force winds and water that covered the area. Rockefeller Refuge was in the direct path of the hurricane and its wildlife population, habitat and man-made improvements suffered extensively. In its rebuilding program the office and residence were constructed on pilings, thus reducing the chances of flooding. Damage to the impoundment levees was repaired and all other structures have subsequently been rebuilt.

The refuge headquarters is located on the northwestern corner of the refuge and is staffed with a refuge supervisor, maintenance crew and patrol agents. The research section is staffed with three wildlife biologists and one fishery biologist.

Maintaining levees, the numerous water control structures, boats and equipment is a year round job for the personnel on the refuge. With the extensive levee system on Rockefeller Refuge, over 150 miles, draglines are kept busy year

round reshaping and dressing the levees of the impoundments. Along with the impoundment maintenance, Rockefeller personnel have installed numerous low weirs on the area and brought an additional 12,200 acres under management.

Constant patrols are made by refuge wardens to prevent trespassing, poaching and other illegal activities. The primary problem has been the illegal killing of alligators. Although the Louisiana Wild Life and Fisheries Commission has closed the season on alligators in an effort to reestablish this important form of wildlife, this has not stopped the illegal kill. The high price paid for the hides has attracted poachers and necessitated constant night patrols during the period when alligators are active. The refuge is one of the last retreats where alligators can be found in large numbers and every effort is made to afford these reptiles the necessary protection. During the winter months patrol efforts are directed towards the protection of the large concentration of waterfowl present on the refuge and surrounding marshes.

Numerous research projects have been conducted and are presently underway concerning various stages of marsh management, plant ecology, pond culture and life history studies of the many forms of fish and wildlife found on the refuge. These projects are conducted by the Research Section of the Refuge Division. Also, several studies are carried out in cooperation with the Louisiana Cooperative Wildlife Research Unit, the Louisiana Cooperative Fishery Research Unit

(Continued on Page 24)

Meadow plant, are abundant in the shallow open water areas of the Gulf from Pascagoula, Mississippi to Port Arthur, Texas. This fertile crescent along the shallow waters of the Gulf is rich in vegetation as the result of organic material flowing down the Mississippi River. The materials stimulate the growth of algae on which most of these fishes feed.

The plant structure was designed by the engineering and architectural firm of Waldemar S. Nelson and Company, New Orleans. Prime contractor was the Binnings Construction Company, also of New Orleans.

The plant site was purchased from Harvey Pel-tier, who Usen pointed out, made the property available under the stipulation to the Usen firm that it would be used for industrial purposes to aid in developing the economic well-being of the area.

At the present time the plant calls for the initial employment of a total of 40 persons. This is exclusive of those employed at the Usen warehouse and rail shipment complex at Lockport. This figure does not take into consideration those employed in the company's fishing and allied operations.

The plant manager is Carroll E. Brusen of Cut Off. *

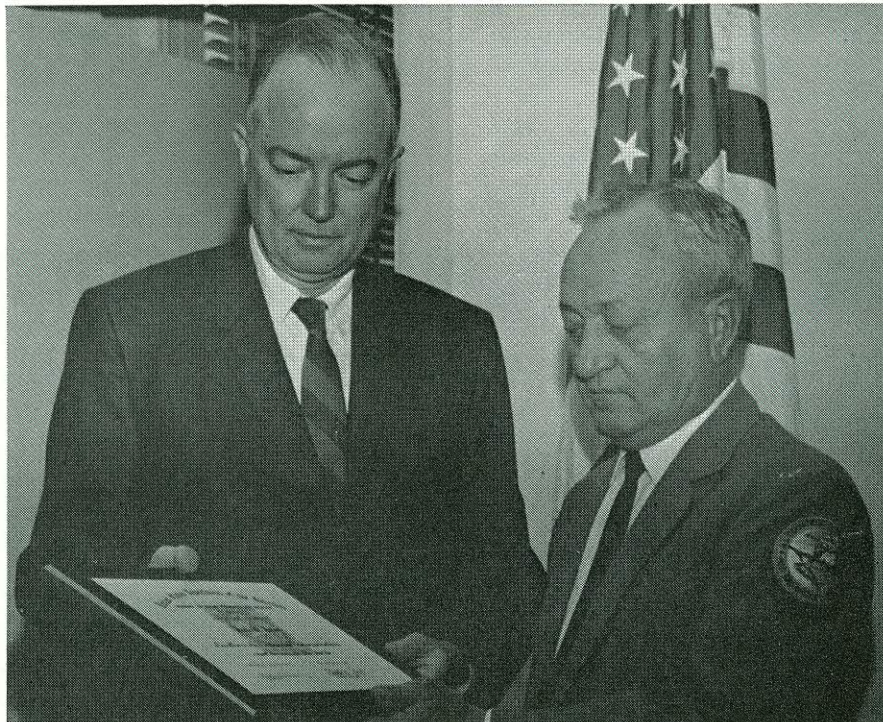
ROCKEFELLER REFUGE

(Continued from Page 4)

and Louisiana State University. These studies help to shed new light on the many problems incurred in marsh management. These findings also serve as guidelines for development and managing the area for wildlife.

The results of these studies and the various development projects demonstrates what man can do to improve on nature to benefit wildlife. Rockefeller Refuge stands out as one of the most highly developed areas for wildlife in the United States, and it is the intention of the Louisiana Wild Life and Fisheries Commission through the Refuge Division that all management, development, and research programs be continued until the entire potential of Rockefeller Refuge has been reached for fish and wildlife.

The Rockefeller Refuge is open to visitors from March 1 through September 30 each year for the purpose of sight-seeing and sports fishing. Permits can be obtained to enter the area by writing to the refuge office at Grand Chenier, Louisiana. Travel on the refuge is mostly by boat since few roads are available. Guided tours are not conducted, but the public is invited to visit over the area at leisure. Captive animals can be seen at a display near the refuge headquarters. The display area is open to visitors year-round and no permits are required. *



AGENT HONORED—Jack Bates of Ponchatoula, right, management and enforcement agent of the U. S. Fish and Wildlife Service, looks over a "special services award" presented him by the federal agency for outstanding communication programs during the fiscal year 1966-67. Admiring the plaque with Bates is Judge Robert A. Ainsworth of the U. S. Circuit Court of Appeals, an old friend and hunting companion. Bates began his wildlife career with the old Conservation Department, forerunner of the Louisiana Wild Life and Fisheries Commission.